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ABSTRACT

This vocational program guide is intended to assist in the organization, operation, and evaluation of a program in data entry operations in school districts, area vocational centers, and community colleges. The following topics are covered: program content (job title and description and curriculum framework and student performance standards); facilities (design criteria, suggested equipment and supplies, and safety); program implementation (the student learning guide and student organization participation); professional considerations (teacher certification and professional organizations and support services); and instructional resources (sources of print and audiovisual materials and software and teacher-recommended materials). A sample student learning guide is appended. A Career Merit Achievement Plan (Career MAP) for use in recording the progress of students enrolled in a data entry operations program is packaged with the program guide. Included in the Career MAP are a list of relevant job titles, overview of the MAP and directions for using it, guidelines for rating student performance standards, and charts detailing the various subcompetencies of the data entry operations skills and work environment readiness skills covered in the data entry operations program. (MN)

ED358347

FLORIDA VOCATIONAL PROGRAM GUIDE FOR

DATA ENTRY OPERATIONS

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**FLORIDA VOCATIONAL
PROGRAM GUIDE FOR**

**DATA ENTRY
OPERATIONS**

State of Florida
Department of Education
Tallahassee, Florida
Betty Castor, Commissioner
Affirmative action/equal opportunity employer

Division of Vocational, Adult, and Community Education
Bureau of Vocational Program and Staff Development

July 1990

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INTRODUCTION

The *Florida Vocational Program Guide for Data Entry Operations* has been developed to provide information that will be useful to local administrators, regional coordinating councils, teachers, and others charged with the responsibility of offering vocational education training in Business Education in school districts, area vocational-technical centers, and community colleges. The final planning, implementation, and evaluation of any educational program, however, must be done within the context of local conditions and local needs.

Many of the elements involved in the creation and maintenance of a vocational education program are generic to all subject areas; these issues are addressed in detail in the *Florida Vocational Program Implementation Guide (FVPIG)*, **which should be considered an essential companion piece to this document.** The *FVPIG* contains information on the following:

- the importance of, as well as development strategies for, student learning guides
- information addressing concerns about program planning and implementation
- teacher requirements, updating, and certification
- program evaluation requirements
- in-depth program-component description

This *Florida Vocational Program Guide for Data Entry Operations* will serve to identify particular considerations in the organization, operation, and evaluation of this specific vocational education program.

This program guide helps ensure equivalency. Data Entry Operations programs, if implemented throughout Florida according to the criteria described in this document, will help many citizens fill important roles in our state and national work force.

PROGRAM CONTENT AND STRUCTURE

The content of the Data Entry Operations program is based on occupational competencies and employability skills required for entry into the data entry occupations. The basic content of this program is described in the Florida Curriculum Framework and Student Performance Standards (SPSs).

The Data Entry Operations program includes both classroom and practical learning experiences that provide students with career information and job requirements for terminal operators, data entry operators, data typists, or peripheral equipment operators. It provides students with an initial exposure to the skills and attitudes associated with careers in related typing and typewriting-machine operator occupations. The basic skills and attitudes related to these occupations are indicated as intended outcomes in the Curriculum Framework of this guide.

Job Title and Description

Job Title: Data Entry Operator, Data Typist, Peripheral Equipment Operator, Terminal Operator

Description: Employees in data entry operations occupations operate key entry devices to convert source documents to machine input media for electronic data processing, verify and convert data, and monitor equipment during operation.

Curriculum Framework and Student Performance Standards

Program objectives and content should be consistent with the Vocational Education Program Courses Standards as approved by the Florida State Board of Education. Provided on the following pages are the Curriculum Framework and Student Performance Standards for Data Entry Operations courses as listed in the official *Vocational Education Program Courses Standards* document. Since these SPSs are continually updated, you should check with your district's business education supervisor and the regional program specialist for a current version every year.

CURRICULUM FRAMEWORK

PROGRAM AREA: Business

FLORIDA DEPARTMENT OF
EDUCATION

EFFECTIVE DATE: July, 1990

PROGRAM TITLE: Data Entry Operations

CODE NUMBER: Secondary 8206200

Postsecondary CGS0992

Florida CIP 0507.030300

SECONDARY

SCHOOL CREDITS 2

COLLEGE CREDITS

POSTSECONDARY ADULT

VOCATIONAL CREDITS X

APPLICABLE LEVEL(S): 7-9 9-12 Postsecondary Adult Vocational

 Postsecondary Vocational

 x Other 10-12, 30, 31

CERTIFICATION

COVERAGE:

10-12

30,31

BUS ED @4 1 2

BUS DP @7

BOOKKEEPING @4 @7

VOE @7

TEC ELEC @7

TEACH CBE @7

ELECT DP @7

BUS ED @4 1

VOE @7

TEACH CBE @7

BUS DP 7

TEC ELEC @7

ELECT DP @7

BOOKKEEPING @4 @7

- I. **Major Concepts/Content.** The purpose of this program is to prepare students for employment as terminal operators (203.582-054), data entry operators, data typists, or peripheral equipment operators, or to provide supplemental training for persons previously or currently employed in this occupational area.

The content prepares individuals to operate key entry devices to convert source documents to machine input media for electronic data processing; to verify and convert data; and to monitor equipment during operation.

Listed below are the courses that comprise this program when offered at the secondary level.

8209010 Typewriting 1/Fundamentals
8206110 Business Computer Applications 1

- II. **Laboratory Activities:** Laboratory activities are an integral part of this program and include the use of keyboarding/typewriting systems, calculators, computers, and peripheral equipment.
- III. **Special Note:** Concepts of American free enterprise are included in this program so that students may function effectively in the American economic system.

Future Business Leaders of America (secondary) and Phi Beta Lambda (postsecondary) are the appropriate vocational student organizations for providing leadership learning experiences and for reinforcing specific vocational skills. When provided, these activities are considered an integral part of this instructional program.

The cooperative method of instruction is appropriate for this program. Whenever the cooperative method is offered, the following is required for each student: a training plan (signed by the student, teacher, and employer), which includes instructional objectives and a list of on-the-job and in-school learning experiences; and a workstation that reflects equipment, skills, and tasks relevant to the occupation that the student has chosen as a career goal. The student must receive compensation for work performed.

In accordance with **Section 233.0695 F.S.**, the minimum basic skills grade level required for the postsecondary adult vocational program is: Mathematics 9.0, Language 9.0. These grade-level numbers correspond to a grade-equivalent score obtained on a state-designated basic-skills examination.

The typical length of this program for the average achieving student is 300 hours.

The particular outcomes and student performance standards which the handicapped student must master to earn credit must be specified in the student's individual educational plan (IEP). Additional credits may be earned when outcomes and standards are mastered in accordance with the requirements indicated in subsequent IEPs. The job title for which the student is being trained must be designated in the IEP.

- IV. **Intended Outcomes:** After successfully completing this program, the student will be able to:
 - 01. Perform telephone activities.
 - 02. Perform math computations.
 - 03. Perform keyboarding/typewriting activities.
 - 04. Perform filing activities.
 - 05. Perform business records activities.
 - 06. Perform mail-handling activities.
 - 07. Perform communication activities.

- 08. Develop human relations skills.
- 09. Develop appropriate grooming habits.
- 10. Perform job application activities.
- 11. Demonstrate a knowledge of information processing concepts.
- 12. Develop leadership skills.
- 13. Perform consumer economics activities.
- 14. Identify functions of data processing.
- 15. Perform decision-making activities.
- 16. Operate data entry equipment.

STUDENT PERFORMANCE STANDARDS

EFFECTIVE DATE: July, 1990

PROGRAM AREA: Business

SECONDARY NUMBER: 8206200

PROGRAM TITLE: Data Entry Operations

POSTSECONDARY
NUMBER: CGS0992

01.0 PERFORM TELEPHONE ACTIVITIES--The student will be able to:

- 01.01 Identify telephone services and types of calls.
- 01.02 Locate telephone numbers and addresses.

02.0 PERFORM MATH COMPUTATIONS--The student will be able to:

- 02.01 Solve addition, subtraction, multiplication, and division problems manually.
- 02.02 Complete an invoice.
- 02.03 Compute totals and sales tax on a sales slip.
- 02.04 Solve addition, subtraction, multiplication, and division problems using a ten-key calculator or numeric pad.
- 02.05 Compute discounts.

03.0 PERFORM KEYBOARDING/TYPEWRITING ACTIVITIES--The student will be able to:

- 03.01 Demonstrate keyboarding techniques.
- 03.02 Identify operative parts of keyboarding equipment.
- 03.03 Identify formatting principles.
- 03.04 Demonstrate speed and accuracy in typing straight-copy material.
- 03.05 Type business letters and envelopes.
- 03.06 Type interoffice memoranda.
- 03.07 Type tabulated information.
- 03.08 Type different sizes of cards.

04.0 PERFORM FILING ACTIVITIES--The student will be able to:

- 04.01 Index, code, sort, and file materials alphabetically.

05.0 PERFORM BUSINESS RECORDS ACTIVITIES--The student will be able to:

- 05.01 Prepare checks and stubs.
- 05.02 Endorse checks using special endorsement.
- 05.03 Prepare a deposit slip and adjust checkbook.
- 05.04 Prepare bank reconciliations.
- 05.05 Enter data into an accounts payable system.
- 05.06 Enter data into an accounts receivable system.
- 05.07 Enter data into a cash payments system.
- 05.08 Enter data into a cash receipts system.
- 05.09 Enter data into a payroll system.

06.0 PERFORM MAIL-HANDLING ACTIVITIES--The student will be able to:

- 06.01 Classify mail.
- 06.02 Locate ZIP codes.

07.0 PERFORM COMMUNICATION ACTIVITIES--The student will be able to:

- 07.01 Locate and record information retrieved from written resources.
- 07.02 Spell and define words, including business terminology.
- 07.03 Follow oral and written instructions.
- 07.04 Compose and keyboard a letter of application.
- 07.05 Compose and keyboard a resume.

08.0 DEVELOP HUMAN RELATIONS SKILLS-- The student will be able to:

- 08.01 Demonstrate appropriate work habits.
- 08.02 Identify traits that promote good human relations and increase job performance.

09.0 DEVELOP APPROPRIATE GROOMING HABITS--The student will be able to:

- 09.01 Identify appropriate attire and grooming for a business office.

10.0 PERFORM JOB APPLICATION ACTIVITIES--The student will be able to:

- 10.01 Complete employment forms.
- 10.02 Classify behaviors considered to be appropriate or inappropriate in a job interview situation.
- 10.03 Compose and type a letter of application and a resume.

11.0 DEMONSTRATE A KNOWLEDGE OF INFORMATION PROCESSING CONCEPTS--The student will be able to:

- 11.01 List major programming languages used in business data processing.
- 11.02 Locate requested information on a computer printout.
- 11.03 Identify applications of computers in modern business.
- 11.04 Classify fields found within an employee payroll record.
- 11.05 Classify fields required on a purchase requisition.
- 11.06 Classify characteristics of recording transactions as either on-line, point-of-sale, or manual.
- 11.07 Calculate batch totals for computer processing.
- 11.08 Balance a payroll register.

12.0 DEVELOP LEADERSHIP SKILLS--The student will be able to:

- 12.01 Choose appropriate action in a situation requiring application of business ethics.
- 12.02 Identify basic principles of parliamentary procedure.
- 12.03 Greet and introduce individuals.

13.0 PERFORM CONSUMER ECONOMICS ACTIVITIES--The student will be able to:

13.01 Identify basic concepts of the American economic system.

14.0 IDENTIFY FUNCTIONS OF DATA PROCESSING--The student will be able to:

14.01 Identify computer hardware and software.

14.02 Identify generic data processing terms.

14.03 Identify the relationship between a source document and a single transaction on a unit of record.

14.04 Identify major types of careers in data processing with the duties performed and educational requirements needed.

14.05 Sequence and define the steps of a processing cycle.

14.06 Identify symbols used in flowchart application.

14.07 Identify characteristics of high-level languages.

15.0 PERFORM DECISION-MAKING ACTIVITIES--The student will be able to:

15.01 Choose appropriate action in situations requiring application of business ethics.

15.02 Establish priority of jobs.

16.0 OPERATE DATA ENTRY EQUIPMENT--The student will be able to:

16.01 Set up workstation following correct procedures for logging on and off system.

16.02 Prepare key entry format for data entry device.

16.03 Enter and verify data from source documents.

16.04 Add, modify, delete, and correct records in a file.

16.05 Locate information in a data file.

16.06 Identify correct solutions to error messages using reference manual.

FACILITIES

Design Criteria

The facility should provide space and learning stations to enable the instruction to meet program objectives. **Florida State Board of Education Rule 6A-2.32** specifies the size of space and occupancy design criteria that school districts or community colleges must follow in planning and designing facilities for Data Entry Operations programs. According to this rule, facility sizes recommended for a one-time occupancy design capacity of fifteen students are:

DEDICATED SPACE (in square feet)

	Per Student			Total (Based on 15 students)		
	Min.	Normal	Max.	Min.	Normal	Max.
Classroom	25	27	29	375	405	435
Laboratory	60	63	66	900	945	990
Materials Storage				95	100	105
Required Program Space				1370	1450	1530

For further information on space, refer to **S.B.E. 6A-2**.

Classroom and laboratory areas should be designed to accommodate Data Entry Operation workstations and equipment. Electrical outlets should be provided in the form of permanently fixed vertical power posts to be accessible for each student workstation. A central master switch should control student workstations.

Lockable storage cabinets should be provided for the security of small electrical appliances, software, and other valuable materials.

Suggested Equipment and Supplies

The following list indicates *suggested* equipment and supplies and is *not* comprehensive.

Tools:

- pliers
- repair kit for simple repairs
- screwdrivers (regular and Phillips)
- wire cutters

Equipment:

- bulletin board
- cabinets (locking)
- cables
- calculators (ten-key)
- chairs (secretarial)
- computer display panel
- copy holders
- copy machine
- cutting board and scissors
- dust covers for computers and printers
- erasable marker board
- filing cabinets (locking)
- fire extinguisher (small portable)
- items for illustration (abacus, magnetic tape reels, vacuum tubes, transistor boards, computer chips, hard disk platter and cases, various sizes of floppy disks, punch cards, etc.)
- hole punches (single and 3-hole)
- lectern or podium
- microcomputers (industry standard, 640k minimum)
- monitors
- mouse
- overhead projector and cart
- printers with stands
- projection screen
- scanner
- surge suppressors
- telephone
- typewriter
- vacuum (hand-held, designed for computers)
- workstations with desks or tables

Supplies:

- antistatic spray
- board cleaner
- calculating machine tapes
- computer paper
- diskette storage boxes
- diskettes and labels
- dry markers for erasable marker board
- felt-tip markers for labeling diskettes
- head-cleaning kit
- perforated invoices

perforated mail labels
perforated sales slips
periodicals
plastic cups (red and blue) to signal for help
printer ribbons and ink machine
stationery and envelopes

Safety

The Florida State Board of Education has established rules for the operation of public schools. Chapter 6A-2 in *Educational Facilities: Public Schools and Community Colleges* contains the standards for existing educational facilities, with regard to such topics as electrical equipment, flammable materials, ventilation, fire safety, storage, and illumination.

Although no specific safety regulations have been mandated for Data Entry Operations programs, it is recommended that strict adherence to the general standards as outlined in these rules be practiced (e.g., first-aid kits in classrooms, adequate fire extinguishers, fire-evacuation plan).

In addition, the following procedures have been found useful in computer labs at various high schools and vocational-technical centers throughout the State of Florida.

Safety procedures and fire drill instructions should be posted and reviewed regularly with students.

Before using hardware and software, students should be thoroughly instructed on its use and care.

Instructor must be present for student to work in the computer lab.

Students should use data disks in second drive; whenever possible, major programs remain intact and write protected in the first drive.

All computer and printer cords should be contained in channels.

Cords for AV equipment should be covered when in use.

All equipment should have surge protectors.

Hard-drive heads should be parked with batch file after each session.

Rooms and halls should have security systems.

Labs should have tiled floors or antistatic carpet.

Networked equipment should be independently wired; when one machine goes down others will not be affected.

Each set of machines should be connected to circuit breakers.

No food, liquids, or smoke should be allowed in the computer lab.

Don't overload circuits.

Equipment should be nontilting.

Cover sharp edges with tape or lucite corner covers.

PROGRAM IMPLEMENTATION _____

Student Learning Guide

A sample student learning guide is provided in the Appendix as an example for you to use when developing or adapting a set of learning guides or modules. This sample guide presents the major components of a competency-based student learning guide. For further information see the *Florida Vocational Program Implementation Guide*.

Student Organization Participation

The vocational student organizations associated with the Data Entry Operations program are Future Business Leaders of America for secondary students and Phi Beta Lambda for postsecondary students. These organizations are cocurricular and are considered integral parts of the instructional program.

Refer to the *Florida Vocational Program Implementation Guide* for more information.

PROFESSIONAL CONSIDERATIONS

Teacher Certification

Listed below are the certification coverages included in the current Course Code Directory for Data Entry Operations:

CERTIFICATION COVERAGE:

10-12

30,31

BUS ED @4 1 2

VOE @7

TEACH CBE @7

BUS DP @7

TEC ELEC @7

ELECT DP @7

BOOKKEEPING @4 @7

BUS ED @4 1 2

VOE @7

TEACH CBE @7

BUS DP 7

TEC ELEC @7

ELECT DP @7

BOOKKEEPING @4 @7

Professional Organizations and Support Services

The following associations and organizations have been identified as serving the needs of those involved in the business-education area. This list is not comprehensive. Teachers should take advantage of the services offered by professional organizations.

American Vocational Education Personnel Development Association (AVEPDA)
Box 6446
Finchburg State College
Finchburg, MA 01420

American Vocational Education Research Association (AVERA)
305 Rolfs Hall
University of Florida
Gainesville, FL 32606

American Vocational Association-Business Education
1410 King Street
Alexandria, VA 22314

Business-Higher Education Forum
One Dupont Circle, Suite 800
Washington, DC 20036

Delta Pi Epsilon
Gustavus Adolphus College
St. Peter, MN 56082

Florida Vocational Association
1420 Paul Russell Road
Tallahassee, FL 32301

Foundation for Student Communication (Business)
305 Aaron Burr Hall
Princeton University, NJ 08540

International Society for Business Education
1914 Association Drive
Reston, VA 22901

Junior Achievement (Business)
45 Clubhouse Drive
Colorado Springs, CO 80906

National Association for Business Teachers
1914 Association Drive
Reston, VA 22091

National Business Education Association (NBEA)
1914 Association Drive
Reston, VA 22091

INSTRUCTIONAL RESOURCES

Listed on the following pages are sample material sources that are available for Data Entry Operations. Additional resources may be available from other sources including professional and trade organizations. You are encouraged to seek catalogs from these firms so that you become familiar with materials available.

Sources of Print and Audiovisual Materials and Software

The following offer instructional materials in print, audiovisual and software media. Contact the software suppliers as to the hardware requirements to operate their materials.

	<u>Print</u>	<u>Audiovisual</u>	<u>Software</u>
Addison Wesley Publishing Company 1 Jacob Way Reading, MA 01867	X	X	X
Aldus Corporation 411 First Avenue South Seattle, WA 98104	--	--	X
Anaheim Publishing Company Wadsworth, Inc. 10 Davis Drive Belmont, CA 94002	X	--	X
Arco Publishing, Inc. Division of Simon & Schuster 1 Gulf and Western Plaza New York, NY 10023	X	--	--
Borland International 4585 Scotts Valley Drive Scotts Valley, CA 95066	--	--	X
Beekman Publishers, Inc. P.O. Box 888 Woodstock, NY 12498	X	--	--
Bergwall Productions, Inc. P.O. Box 238 Garden City, NY 11530-0238	--	X	--
Bobbs-Merrill Company 866 Third Avenue New York, NY 10022	X	X	--

	<u>Print</u>	<u>Audiovisual</u>	<u>Software</u>
Boyd and Fraser Publishing Co. Statler Office Building 20 Park Plaza Boston, MA 02116	X	X	--
Brodart Company 500 Arch Street Williamsport, PA 17705	X	--	--
Business Education Services 10200 Jefferson Boulevard, Room 4 P.O. Box 802 Culver City, CA 90232-082	X	X	X
ButtonWare Inc. P.O. Box 5786 Bellevue, WA 98006	--	--	X
Career Aids 20417 Nordhoff Street Chatsworth, CA 91311	X	X	X
CompuSoft Publishing Company Box 28752 San Diego, CA 92128	X	--	--
Delmar Publishing, Inc. 2 Computer Drive, West Albany, NY 12205	X	--	--
Dictation Disc Company 14 East 38th Street New York, NY 10016	X	X	--
Dryden Publishers A Division of Holt, Rinehart & Winston 901 N. Elm Hillsdale, IL 60521	X	--	--
Educational Development and Training Center East Texas State University Commerce, TX 75428	X	X	--
Franklin, Beedle and Associates Publishers 4521 Campus Drive, 327 Irvine, CA 92715-9877	X	--	X

	<u>Print</u>	<u>Audiovisual</u>	<u>Software</u>
Franklin McNeal, Ltd. 1175-1 Fleming Street P.O. Box 2335 Smyrna, GA 30081-2335	--	--	X
Glencoe Publishing Company 15319 Chatsworth Street Mission Hills, CA 91345-9509	X	X	X
Harcourt Brace Jovanovich, Inc. 1250 Sixth Avenue San Diego, CA 92101	X	X	--
Houghton Mifflin Company One Beacon Street Boston, MA 02108	X	X	X
Howard W. Sams and Company A Division of Macmillan, Inc. 4300 West 62nd Street Indianapolis, IN 46268	X	--	--
Lotus Development Corp. 55 Wheeler Street Cambridge, MA 02138	--	--	X
Macmillan Publishing Co., Inc. 866 Third Avenue New York, NY 10022	X	X	X
McGraw-Hill Publishing Company 1221 Avenue of the Americas New York, NY 10020	X	X	X
McGraw-Hill Publishing Company Gregg Division 13955 Manchester Road Manchester, MO 63011	X	X	X
Medlin Accounting Shareware 1461 Sproul Avenue Napa, CA 94559	--	--	X
Mosaic Software Inc. 1972 Massachusetts Ave. Cambridge, MA 02140	--	--	X

	<u>Print</u>	<u>Audiovisual</u>	<u>Software</u>
National Learning Corporation 212 Michael Drive Syosset, NY 11791	X	--	--
Oklahoma State Department of Vocational and Technical Education 1500 West Seventh Avenue Stillwater, OK 74074-4364	X	X	X
Prentice Hall Division of Simon and Schuster Route 9 West Englewood Cliffs, NJ 07632	X	X	X
Putnam Publishing Group 200 Madison Avenue New York, NY 10016	X	--	--
Richard D. Irwin, Inc. 1818 Ridge Road Homewood, IL 60430	X	X	X
RMI Media Productions 120 West 72nd Street Kansas City, MO 64114	--	X	--
Sams, Howard and Co. A Division of Macmillan, Inc. 4300 West 62nd Street Indianapolis, IN 46268	X	X	--
Software Publishing Corp. P.O. Box 7210 Mountain View, CA 94039-7210	--	--	X
South-Western Publishing Company 5101 Madison Road Cincinnati, OH 45227	X	X	X
SRA/Pergamon Business and Technical Division 1999 Shepard Road Saint Paul, MN 55116	X	X	X
Tandy Corporation Ft Worth, TX 76102	--	--	X

	<u>Print</u>	<u>Audiovisual</u>	<u>Software</u>
Wadsworth, Inc. 10 Davis Drive Belmont, CA 94002	X	--	X
Walch, J. Weston, Publisher P.O. Box 658 Portland, ME 04104-0658	X	X	X
West Publishing Company 50 W. Kellogg Boulevard P.O. Box 64526 St. Paul, MN 55164-1003	X	--	--
Wiley, John & Sons, Inc. 605 Third Avenue New York, NY 10158-0012	X	X	X
WordPerfect Corporation 1555 Technology Way Orem, UT 84057	--	--	X

Teacher-Recommended Materials

PRINT

<u>Author</u>	<u>Title</u>	<u>Publisher</u>	<u>Year</u>
Blanc, Iris and Hildebrandt, Elinore	<i>DDC Database</i>	Dictation Disc Company	1988
Blanc, Iris	<i>Skill Building Exercises for the Word Processor</i>	Dictation Disc Company	1988
Blanc, Iris and Vento, Cathy	<i>Spreadsheets Skill Building Exercises and Applications</i>	Dictation Disc Company	1986
Brooks, Lloyd D.	<i>101 Spreadsheet Exercises</i>	McGraw-Hill	1987
Bux, William E.	<i>Data Entry Activities for the Microcomputer (2nd Edition)</i>	South-Western Publishing Company	1988

<u>Author</u>	<u>Title</u>	<u>Publisher</u>	<u>Year</u>
Clark, James F. and Lambrecht, Judith J.	<i>Information Processing: Concepts, Principles, and Procedures</i>	South-Western	1985
Clark, James F. and Drum, William O.	<i>Structured Basic (2nd Edition)</i>	South-Western	1989
Clark, James F. and Drum, William O.	<i>Structured Basic: Study Guides and Problems</i>	South-Western	1989
Copeland, Cody T. and Bacon, Jonathan	<i>Understanding and Using MS- DOS/PC-DOS: A Complete Guide</i>	West	1987
Crawford, James T.; Erickson, Lawrence W.; Beaumont, Lee R.; Robinson, Jerry W.; and Ownby, Arnola C.	<i>Century 21: Keyboarding, Formatting, and Document Processing (4th Edition)</i>	South-Western	1987
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Drumm, William O.	<i>Database Applications</i>	South-Western	1986
Eisch, Mary Alice	<i>WordPerfect Tutorial and Applications: IBM Version</i>	South-Western	1988
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<u>Author</u>	<u>Title</u>	<u>Publisher</u>	<u>Year</u>
Lien, David A.	<i>MS-DOS Volume 1: The Basics</i> (3rd Edition)	CompuSoft	1988
Lien, David A.	<i>MS-DOS Volume 2: Advanced Applications</i> (2nd Edition)	CompuSoft	1987
Lloyd, Alan C.; Winger, Fred E.; Johnson, Jack E.; Morrison, Phyllis C.; and Hall, Rebecca A.	<i>Gregg Typing: Keyboarding and Processing Documents</i>	McGraw-Hill	1987
Mandell, Steven L.	<i>Introduction to Computers Using the IBM PC</i>	West	1985
Olinzock, Anthony A.; Sandos, Otto, Jr.	<i>Microcomputer Simulations in Business</i>	South-Western	1986
Pasewark, William R.	<i>Electronic Printing Calculator</i> (2nd Edition)	South-Western	1982
Schnake, Marilyn	<i>The World of Computers and Data Processing</i>	West	1985
Shelly, Gary B. and Cashman, Thomas J.	<i>Learning to Use WordPerfect, Lotus 1-2-3, and dBase III+</i>	Boyd and Fraser	1990
Sprenger, Christine; Weidkamp, Keith; and Burns, Clifford	<i>Record Keeping Applications Using the Microcomputer</i> (also software)	South-Western	1988
Stewart, Jeffrey R.; McMinnis, Sandra R.; and Nelesco, Nancy M.	<i>101 Database Exercises</i>	McGraw-Hill	1987
Tandy Staff	<i>A Practical Guide to the Tandy 1000 SX</i>	Tandy Corp.	1986

<u>Author</u>	<u>Title</u>	<u>Publisher</u>	<u>Year</u>
Whalen, Patricia M.	<i>Basic Skills for the Modern Office</i>	South-Western	1989

AUDIOVISUAL

<u>Title</u>	<u>Source</u>	<u>Format</u>	<u>Date</u>
<i>Personal Computers: Basic Concepts</i>	RMI Media Productions Inc.	filmstrip	1979
<i>Computers: Peripherals and Programming</i>	RMI Media Productions Inc.	filmstrip	1979
<i>Introduction to Computers</i>	RMI Media Productions Inc.	filmstrip	1979
<i>About Computers</i>	IBM	filmstrip	1979

SOFTWARE

<u>Title</u>	<u>Source</u>	<u>Format</u>	<u>Date</u>
<i>Data Entry Activities for the Microcomputer (also print)</i>	South-Western	Apple, IBM, TRS-80	1988
<i>WordPerfect</i>	WordPerfect Corp.	IBM, Apple	no date
<i>Lotus 1-2-3</i>	Lotus Dev. Corp.	IBM	no date
<i>The Student Version of Lotus 1-2-3</i>	Addison Wesley	IBM, Apple, Tandy	1989
<i>PFS First Choice</i>	Software Publishing	IBM, Tandy	1987
<i>DeskMate (also user's reference manual)</i>	Tandy	IBM	1988
<i>Twin Spreadsheet</i>	Mosiac Software, Inc.	IBM	1985
<i>Alphabetic Keyboarding (2nd Edition)</i>	South-Western	Apple, IBM	1988

<u>Title</u>	<u>Source</u>	<u>Format</u>	<u>Date</u>
<i>PC-GL (gen'l ledger); PC-AR (accts. rec.); PC-AP (accts. pay.); and PC-PR (payroll)</i>	Medlin Accounting Shareware		no date
<i>Structured Basic (test and tutorial diskettes)</i>	South-Western	IBM, Tandy	1989
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PERIODICALS

Teaching and Computers
Scholastic Inc.
730 Broadway
New York, NY 10003-9538

Electronic Learning
Scholastic Inc.
P.O. Box 2040
Mahopac, NY 10541-9963

Modern Office Technology
1100 Superior Avenue
Cleveland, OH 44114

T.H.E. Journal
P.O. Box 15126
Santa Ana, CA 92705-0126
(free)

Classroom Computer Learning
2451 E. River Road
Dayton, OH 45439

Info World
P.O. Box 5994
Pasadena, CA 91117

PC Resource
IDG Communications/Peterborough, Inc.
80 Elm Street
Peterborough, NH 03458

PCM
Falsoft, INC.
P.O. Box 385
Prospect, KY 40059

Teacher
Suite 250
4301 Connecticut Ave. NW
Washington, D.C. 20008

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APPENDIX

Sample Student Learning Guide
for
Data Entry Operations

09.0 DEVELOP APPROPRIATE GROOMING HABITS

PROCEDURE

LEARNING ACTIVITIES	RESOURCES
1. Read Resource No. 1 to become familiar with aspects of good grooming. 2. Evaluate your knowledge by completing the Self-Check.	1. Instruction Sheet enclosed. <u>Looking Good</u> 2. Self-Check enclosed.

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Looking Good

"What I wear is my own business!" That may be true in your personal life, but on the job, it's your employer's business, too. Workers who think that clothes, grooming, personal habits, and general health can't help - or hurt - when trying to get a good job are only kidding themselves. In fact, some employers rate their workers' appearance and grooming habits on employee evaluation forms, and use these evaluations in deciding who will get a raise or promotion. Grooming and dressing are important for two reasons:

1. for safety (they want to protect their employees from injury).
2. for appearance (they want their employees to look good).

SAFETY**APPEARANCE**

"Why should my appearance matter? I get my work done, and I do a good job!" Employers know that customers and co-workers expect to deal with people who are clean, healthy looking, and neatly dressed. They also know that people sometimes judge a company by the appearance of its workers. For these reasons, most employers insist that their workers have good grooming habits.

Personal appearance can help a worker's chances for promotion. Things like proper weight, good posture, and pleasant manners can be very important, especially in businesses where the employee must work with the public. Sometimes nervous personal habits (like smoking, chewing gum, cracking knuckles, or biting fingernails) can keep workers from jobs where they must represent the company to the public.

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The most important rule in good grooming is cleanliness: hair, clothes, body, fingernails, breath. But there are other grooming rules a new worker needs to think about, such as proper dress. Some companies provide or require uniforms for their employees. Others have dress codes. These are rules or guidelines of what to wear, including clothes, jewelry, and hairstyles. For example, many employers prefer female workers to wear very little makeup and jewelry to work. They may ask their male employees to be clean shaven or to wear only short, well-trimmed beards or moustaches. Dress codes like these are chosen to improve the appearance of employees.



Employers also choose dress codes or uniforms for their workers' safety. Steel-toed shoes, protective eye goggles, and rubber gloves are safety wear required on some jobs. For people who work with machines, long hair can be a safety hazard. Dress codes that require short hair (or require hair to be pulled back) are designed to prevent accidents.

Not all dress codes are written down. Some are just understood. For example, dirty hair and wrinkled clothes with missing buttons are never proper dress. Heavily scented colognes and after-shaves are better worn after hours and not to work. For some kinds of work, blue jeans are fine, but they are not suited for all jobs. In the same way, there are jobs where a business suit would be out of place.

The general dress code for any job is to dress neatly and appropriately. This means wearing the clothes, jewelry, and hairstyle suited for the kind of work you do.

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SELF-CHECK: KNOWLEDGE OUTCOME

RVTC

DIRECTIONS:

Evaluate your knowledge by answering True or False to the items below on a separate sheet of paper.

1. Two reasons why grooming and dress are important are safety and appearance.
2. The most important rule in good grooming is cleanliness.
3. Dress codes are guidelines of what employees should not wear.
4. Dress codes are enforced only because of safety hazards occurring.
5. The general dress code for any job is to dress neatly and appropriately.

1. T
2. T
3. F
4. F
5. T

Now check your answers with the Answer Key.

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State of Florida
Department of Education
Tallahassee, Florida
Betty Castor, Commissioner
Affirmative action/equal opportunity employer

Division of Vocational, Adult, and Community Education

DVACE/07/90/600

12345789/90

BE 146 BK 90

CAREER MERIT ACHIEVEMENT PLAN (CAREER MAP)

DATA ENTRY OPERATIONS

(0507.030300)

STUDENT'S NAME



State of Florida

An affirmative action/equal opportunity employer

DEPARTMENT OF EDUCATION
Betty Castor, Commissioner

DIVISION OF VOCATIONAL, ADULT, AND COMMUNITY EDUCATION
Robert S. Howell, Director

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Tallahassee, FL 32399
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**THIS MERIT ACHIEVEMENT PLAN RECORDS THE
ACHIEVEMENTS OF:**

**Student's
Name** _____

**Student's ID
Number** _____

**Student's
Address** _____

**Instructor's
Name** _____

Initials _____

School _____

**Date
Started** _____

**PRIMARY JOB TITLES FOR
THIS INSTRUCTIONAL PROGRAM**

- Data Entry Operators
- Data Typists (203.582-022)
- Peripheral Equipment Operators (213.382-010)
- Terminal Operators (203.582-054)

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OVERVIEW

This Career MAP includes the competencies required for entry into the work force as a data entry operator. Business and industry representatives have recommended that students in this field master these competencies in order to become employable. Local education agencies (LEAs) may adapt these competencies to meet their work-force needs.

Purposes of the MAP

The purposes of the MAP are to display the student performance standards (SPSs) required by the LEA and to document the level of achievement on SPSs that the student demonstrates.

How to Use the MAP

Administrator and Instructor. The administrator and instructor can use Career MAPs in curriculum planning, program updating and improvement, and teacher recruitment, selection, and updating. If the LEA changes or adds SPSs, the revised or additional SPSs should be included in the blank boxes that appear within each intended outcome or at the end of this MAP.

Instructor. The instructor can use Career MAPs to keep track of student progress on SPSs. By periodically reviewing the ratings on standards, the instructor can identify a student's strengths and weaknesses and on that basis identify the skills for which the student needs remedial instruction or advanced training. MAPs can also be useful in student counseling and evaluation.

Co-op Instructor/Employer. The employer who sponsors a co-op program should use the Career MAP for keeping a record of the student's performance on appropriate standards. The MAPs will also help the co-op instructor/employer in counseling and evaluating the student.

Student. The student may use the MAP to show potential employers the performance standards he or she has mastered. In order to present a complete record, the student should encourage the instructor/co-op employer to rate his or her level of achievement on all the appropriate SPSs and to fill in the verification form and the business cooperative education on-the-job experience page in the back of this MAP.

Employer. The MAP shows an employer the SPSs mastered by the student (a prospective employee) and the proficiency level achieved on each one. This information can help the employer make decisions about hiring, job assignments, and job-training needs.

Rating Student Performance

Performance Competencies. Ratings on SPSs should be based upon business/industrial performance standards. The evaluator observes and evaluates student performance as he or she would in the role of the employer or supervisor.

For each skill listed, the learner receives a rating of 1, 2, or 3. Each rating indicates a particular level of achievement:

- 1 = Learner demonstrates knowledge and understanding of this SPS, but is not yet able to apply that knowledge or understanding.
- 2 = Learner performs this SPS satisfactorily with only periodic supervision.
- 3 = Learner performs this SPS satisfactorily without supervision.

Whenever a performance standard is demonstrated, the instructor checks the appropriate rating box (1, 2, or 3) and initials and dates the verification line. If the student later demonstrates a higher level of achievement on a performance competency, the instructor checks the higher level and then enters his or her initials and the new date on the verification line, as shown in the following example:

02 03	
Compute totals and sales tax on a sales slip	1
	2 ✓
	3 ✓
LM 2-1-90 JF 3-15-90	
Verification	

Knowledge Competencies. For each SPS that is a knowledge competency only, with no manipulative skill involved, only one level of achievement is possible. If the student masters the competency, he or she receives a check in the bottom box ("K"), as shown below:

14 01	
Identify computer hardware and software	1
	2
	3
LM 1-21-90 K ✓	
Verification	

NOTE: An SPS without a checked rating indicates that the learner has not mastered the standard from lack of ability, time, opportunity, or need (the student's area of specialization may not have required it).

01.0 PERFORM TELEPHONE ACTIVITIES.

01.01
Identify telephone services and types of calls.

1 ☐
2 ☐
3 ☐
K ☐

Verification

01.02
Locate telephone numbers and addresses.

1 ☐
2 ☐
3 ☐
K ☐

Verification

1 ☐
2 ☐
3 ☐
K ☐

Verification

1 ☐
2 ☐
3 ☐
K ☐

Verification

1 ☐
2 ☐
3 ☐
K ☐

Verification

1 ☐
2 ☐
3 ☐
K ☐

Verification

02.0 PERFORM MATH COMPUTATIONS.

02.01
Solve addition, subtraction, multiplication, and division problems manually.

1 ☐
2 ☐
3 ☐
K ☐

Verification

02.02
Complete an invoice.

1 ☐
2 ☐
3 ☐
K ☐

Verification

02.03
Compute totals and sales tax on a sales slip.

1 ☐
2 ☐
3 ☐
K ☐

Verification

02.04
Solve addition, subtraction, multiplication, and division problems using a ten-key calculator or numeric pad.

1 ☐
2 ☐
3 ☐
K ☐

Verification

02.05
Compute discounts.

1 ☐
2 ☐
3 ☐
K ☐

Verification

1 ☐
2 ☐
3 ☐
K ☐

Verification

1 ☐
2 ☐
3 ☐
K ☐

Verification

1 ☐
2 ☐
3 ☐
K ☐

Verification

1 ☐
2 ☐
3 ☐
K ☐

Verification

1 ☐
2 ☐
3 ☐
K ☐

Verification

1 ☐
2 ☐
3 ☐
K ☐

Verification

1 ☐
2 ☐
3 ☐
K ☐

Verification

DATA ENTRY OPERATIONS

03.0 PERFORM KEYBOARDING/TYPEWRITING ACTIVITIES.

03 01
Demonstrate keyboarding techniques

1 ☐
2 ☐
3 ☐
K ☐

Verification

03 02
Identify operative parts of keyboarding equipment

1 ☐
2 ☐
3 ☐
K ☐

Verification

03 03
Identify formatting principles

1 ☐
2 ☐
3 ☐
K ☐

Verification

03 04
Demonstrate speed and accuracy in typing straight-copy material

1 ☐
2 ☐
3 ☐
K ☐

Verification

03 05
Type business letters and envelopes

1 ☐
2 ☐
3 ☐
K ☐

Verification

03 06
Type interoffice memoranda

1 ☐
2 ☐
3 ☐
K ☐

Verification

03 07
Type tabulated information

1 ☐
2 ☐
3 ☐
K ☐

Verification

03 08
Type different sizes of cards

1 ☐
2 ☐
3 ☐
K ☐

Verification

Verification

04.0 PERFORM FILING ACTIVITIES.

04 01
Index, code, sort, and file materials alphabetically

1 ☐
2 ☐
3 ☐
K ☐

Verification

1 ☐
2 ☐
3 ☐
K ☐

Verification

Verification

1 ☐
2 ☐
3 ☐
K ☐

Verification

1 ☐
2 ☐
3 ☐
K ☐

Verification

Verification

DATA ENTRY OPERATIONS

05.0 PERFORM BUSINESS RECORDS ACTIVITIES.

05.01
Prepare checks and stubs.

1 ☐
2 ☐
3 ☐
K ☐

Verification

05.02
Endorse checks using special endorsement.

1 ☐
2 ☐
3 ☐
K ☐

Verification

05.03
Prepare a deposit slip and adjust checkbook.

1 ☐
2 ☐
3 ☐
K ☐

Verification

05.04
Prepare bank reconciliations.

1 ☐
2 ☐
3 ☐
K ☐

Verification

05.05
Enter data into an accounts payable system.

1 ☐
2 ☐
3 ☐
K ☐

Verification

05.06
Enter data into an accounts receivable system.

1 ☐
2 ☐
3 ☐
K ☐

Verification

05.07
Enter data into a cash payments system.

1 ☐
2 ☐
3 ☐
K ☐

Verification

05.08
Enter data into a cash receipts system.

1 ☐
2 ☐
3 ☐
K ☐

Verification

05.09
Enter data into a payroll system.

1 ☐
2 ☐
3 ☐
K ☐

Verification

1 ☐
2 ☐
3 ☐
K ☐

Verification

1 ☐
2 ☐
3 ☐
K ☐

Verification

1 ☐
2 ☐
3 ☐
K ☐

Verification

06.0 PERFORM MAIL-HANDLING ACTIVITIES.

06.01
Classify mail.

1 ☐
2 ☐
3 ☐
K ☐

Verification

06.02
Locate ZIP codes.

1 ☐
2 ☐
3 ☐
K ☐

Verification

1 ☐
2 ☐
3 ☐
K ☐

Verification

1 ☐
2 ☐
3 ☐
K ☐

Verification

1 ☐
2 ☐
3 ☐
K ☐

Verification

1 ☐
2 ☐
3 ☐
K ☐

Verification

DATA ENTRY OPERATIONS

07.0 PERFORM COMMUNICATION ACTIVITIES.

07.01
Locate and record information
retrieved from written
resources

1 ☐
2 ☐
3 ☐
K ☐

Verification

07.02
Spell and define words, includ-
ing business terminology.

1 ☐
2 ☐
3 ☐
K ☐

Verification

07.03
Follow oral and written
instructions.

1 ☐
2 ☐
3 ☐
K ☐

Verification

07.04
Compose and keyboard a letter
of application

1 ☐
2 ☐
3 ☐
K ☐

Verification

07.05
Compose and keyboard a
resume

1 ☐
2 ☐
3 ☐
K ☐

Verification

1 ☐
2 ☐
3 ☐
K ☐

Verification

1 ☐
2 ☐
3 ☐
K ☐

Verification

1 ☐
2 ☐
3 ☐
K ☐

Verification

1 ☐
2 ☐
3 ☐
K ☐

Verification

08.0 DEVELOP HUMAN RELATIONS SKILLS.

08.01
Demonstrate appropriate work
habits.

1 ☐
2 ☐
3 ☐
K ☐

Verification

08.02
Identify traits that promote
good human relations and
increase job performance.

1 ☐
2 ☐
3 ☐
K ☐

Verification

1 ☐
2 ☐
3 ☐
K ☐

Verification

1 ☐
2 ☐
3 ☐
K ☐

Verification

1 ☐
2 ☐
3 ☐
K ☐

Verification

1 ☐
2 ☐
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K ☐

Verification

1 ☐
2 ☐
3 ☐
K ☐

Verification

1 ☐
2 ☐
3 ☐
K ☐

Verification

1 ☐
2 ☐
3 ☐
K ☐

Verification

DATA ENTRY OPERATIONS

09.0 DEVELOP APPROPRIATE GROOMING HABITS.

09.01
Identify appropriate attire and grooming for a business office.

1 ☐
2 ☐
3 ☐
K ☐

Verification

1 ☐
2 ☐
3 ☐
K ☐

Verification

1 ☐
2 ☐
3 ☐
K ☐

Verification

1 ☐
2 ☐
3 ☐
K ☐

Verification

1 ☐
2 ☐
3 ☐
K ☐

Verification

1 ☐
2 ☐
3 ☐
K ☐

Verification

10.0 PERFORM JOB APPLICATION ACTIVITIES.

10.01
Complete employment forms.

1 ☐
2 ☐
3 ☐
K ☐

Verification

10.02
Classify behaviors considered to be appropriate or inappropriate in a job interview situation.

1 ☐
2 ☐
3 ☐
K ☐

Verification

10.03
Compose and type a letter of application and a resume.

1 ☐
2 ☐
3 ☐
K ☐

Verification

1 ☐
2 ☐
3 ☐
K ☐

Verification

1 ☐
2 ☐
3 ☐
K ☐

Verification

1 ☐
2 ☐
3 ☐
K ☐

Verification

11.0 DEMONSTRATE A KNOWLEDGE OF INFORMATION-PROCESSING CONCEPTS.

11.01
List major programming languages used in business data processing.

1 ☐
2 ☐
3 ☐
K ☐

Verification

11.02
Locate requested information on a computer printout.

1 ☐
2 ☐
3 ☐
K ☐

Verification

11.03
Identify applications of computers in modern business.

1 ☐
2 ☐
3 ☐
K ☐

Verification

DATA ENTRY OPERATIONS

11.04 Classify fields found within an employee payroll record. 1 ☐ 2 ☐ 3 ☐ K ☐ _____ Verification	11.05 Classify fields required on a purchase requisition. 1 ☐ 2 ☐ 3 ☐ K ☐ _____ Verification	11.06 Classify characteristics of recording transactions as either on-line, point-of-sale, or manual. 1 ☐ 2 ☐ 3 ☐ K ☐ _____ Verification
11.07 Calculate batch totals for computer processing. 1 ☐ 2 ☐ 3 ☐ K ☐ _____ Verification	11.08 Balance a payroll register. 1 ☐ 2 ☐ 3 ☐ K ☐ _____ Verification	1 ☐ 2 ☐ 3 ☐ K ☐ _____ Verification
1 ☐ 2 ☐ 3 ☐ K ☐ _____ Verification	1 ☐ 2 ☐ 3 ☐ K ☐ _____ Verification	1 ☐ 2 ☐ 3 ☐ K ☐ _____ Verification
12.0 DEVELOP LEADERSHIP SKILLS.		
12.01 Choose appropriate action in a situation requiring application of business ethics. 1 ☐ 2 ☐ 3 ☐ K ☐ _____ Verification	12.02 Identify basic principles of parliamentary procedure. 1 ☐ 2 ☐ 3 ☐ K ☐ _____ Verification	12.03 Greet and introduce individuals. 1 ☐ 2 ☐ 3 ☐ K ☐ _____ Verification
1 ☐ 2 ☐ 3 ☐ K ☐ _____ Verification	1 ☐ 2 ☐ 3 ☐ K ☐ _____ Verification	1 ☐ 2 ☐ 3 ☐ K ☐ _____ Verification
13.0 PERFORM CONSUMER ECONOMICS ACTIVITIES.		
13.01 Identify basic concepts of the American economic system. 1 ☐ 2 ☐ 3 ☐ K ☐ _____ Verification	1 ☐ 2 ☐ 3 ☐ K ☐ _____ Verification	1 ☐ 2 ☐ 3 ☐ K ☐ _____ Verification

1 ☐ 2 ☐ 3 ☐ K ☐ Verification	1 ☐ 2 ☐ 3 ☐ K ☐ Verification	1 ☐ 2 ☐ 3 ☐ K ☐ Verification
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14.0 IDENTIFY FUNCTIONS OF DATA PROCESSING.

14.01 Identify computer hardware and software. 1 ☐ 2 ☐ 3 ☐ K ☐ Verification	14.02 Identify generic data processing terms. 1 ☐ 2 ☐ 3 ☐ K ☐ Verification	14.03 Identify the relationship between a source document and a single transaction on a unit of record. 1 ☐ 2 ☐ 3 ☐ K ☐ Verification
14.04 Identify major types of careers in data processing with the duties performed and educational requirements needed. 1 ☐ 2 ☐ 3 ☐ K ☐ Verification	14.05 Sequence and define the steps of a processing cycle. 1 ☐ 2 ☐ 3 ☐ K ☐ Verification	14.06 Identify symbols used in flow-chart application. 1 ☐ 2 ☐ 3 ☐ K ☐ Verification
1 ☐ 2 ☐ 3 ☐ K ☐ Verification	1 ☐ 2 ☐ 3 ☐ K ☐ Verification	1 ☐ 2 ☐ 3 ☐ K ☐ Verification
1 ☐ 2 ☐ 3 ☐ K ☐ Verification	1 ☐ 2 ☐ 3 ☐ K ☐ Verification	1 ☐ 2 ☐ 3 ☐ K ☐ Verification

DATA ENTRY OPERATIONS

15.0 PERFORM DECISION-MAKING ACTIVITIES.

15.01 Choose appropriate action in situations requiring application of business ethics. 1 ☐ 2 ☐ 3 ☐ K ☐ Verification	15.02 Establish priority of jobs. 1 ☐ 2 ☐ 3 ☐ K ☐ Verification	1 ☐ 2 ☐ 3 ☐ K ☐ Verification
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1 ☐ 2 ☐ 3 ☐ K ☐ Verification	1 ☐ 2 ☐ 3 ☐ K ☐ Verification	1 ☐ 2 ☐ 3 ☐ K ☐ Verification
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16.0 - OPERATE DATA ENTRY EQUIPMENT.

16.01 Set up workstation following correct procedures for logging on and off system. 1 ☐ 2 ☐ 3 ☐ K ☐ Verification	16.02 Prepare key entry format for data entry device. 1 ☐ 2 ☐ 3 ☐ K ☐ Verification	16.03 Enter and verify data from source documents. 1 ☐ 2 ☐ 3 ☐ K ☐ Verification
16.04 Add, modify, delete, and correct records in a file. 1 ☐ 2 ☐ 3 ☐ K ☐ Verification	16.05 Locate information in a data file. 1 ☐ 2 ☐ 3 ☐ K ☐ Verification	16.06 Identify correct solutions to error messages using reference manual. 1 ☐ 2 ☐ 3 ☐ K ☐ Verification
1 ☐ 2 ☐ 3 ☐ K ☐ Verification	1 ☐ 2 ☐ 3 ☐ K ☐ Verification	1 ☐ 2 ☐ 3 ☐ K ☐ Verification
1 ☐ 2 ☐ 3 ☐ K ☐ Verification	1 ☐ 2 ☐ 3 ☐ K ☐ Verification	1 ☐ 2 ☐ 3 ☐ K ☐ Verification
1 ☐ 2 ☐ 3 ☐ K ☐ Verification	1 ☐ 2 ☐ 3 ☐ K ☐ Verification	1 ☐ 2 ☐ 3 ☐ K ☐ Verification
1 ☐ 2 ☐ 3 ☐ K ☐ Verification	1 ☐ 2 ☐ 3 ☐ K ☐ Verification	1 ☐ 2 ☐ 3 ☐ K ☐ Verification

DATA ENTRY OPERATIONS

1 ☐ 2 ☐ 3 ☐ K ☐ Verification	1 ☐ 2 ☐ 3 ☐ K ☐ Verification	1 ☐ 2 ☐ 3 ☐ K ☐ Verification
1 ☐ 2 ☐ 3 ☐ K ☐ Verification	1 ☐ 2 ☐ 3 ☐ K ☐ Verification	1 ☐ 2 ☐ 3 ☐ K ☐ Verification
1 ☐ 2 ☐ 3 ☐ K ☐ Verification	1 ☐ 2 ☐ 3 ☐ K ☐ Verification	1 ☐ 2 ☐ 3 ☐ K ☐ Verification
1 ☐ 2 ☐ 3 ☐ K ☐ Verification	1 ☐ 2 ☐ 3 ☐ K ☐ Verification	1 ☐ 2 ☐ 3 ☐ K ☐ Verification
1 ☐ 2 ☐ 3 ☐ K ☐ Verification	1 ☐ 2 ☐ 3 ☐ K ☐ Verification	1 ☐ 2 ☐ 3 ☐ K ☐ Verification
1 ☐ 2 ☐ 3 ☐ K ☐ Verification	1 ☐ 2 ☐ 3 ☐ K ☐ Verification	1 ☐ 2 ☐ 3 ☐ K ☐ Verification
1 ☐ 2 ☐ 3 ☐ K ☐ Verification	1 ☐ 2 ☐ 3 ☐ K ☐ Verification	1 ☐ 2 ☐ 3 ☐ K ☐ Verification
1 ☐ 2 ☐ 3 ☐ K ☐ Verification	1 ☐ 2 ☐ 3 ☐ K ☐ Verification	1 ☐ 2 ☐ 3 ☐ K ☐ Verification

DATA ENTRY OPERATIONS

COOPERATIVE WORK EXPERIENCE COMPETENCIES

1 ☐	1 ☐	1 ☐
2 ☐	2 ☐	2 ☐
3 ☐	3 ☐	3 ☐
K ☐	K ☐	K ☐
Verification _____	Verification _____	Verification _____

1 ☐	1 ☐	1 ☐
2 ☐	2 ☐	2 ☐
3 ☐	3 ☐	3 ☐
K ☐	K ☐	K ☐
Verification _____	Verification _____	Verification _____

1 ☐	1 ☐	1 ☐
2 ☐	2 ☐	2 ☐
3 ☐	3 ☐	3 ☐
K ☐	K ☐	K ☐
Verification _____	Verification _____	Verification _____

1 ☐	1 ☐	1 ☐
2 ☐	2 ☐	2 ☐
3 ☐	3 ☐	3 ☐
K ☐	K ☐	K ☐
Verification _____	Verification _____	Verification _____

1 ☐	1 ☐	1 ☐
2 ☐	2 ☐	2 ☐
3 ☐	3 ☐	3 ☐
K ☐	K ☐	K ☐
Verification _____	Verification _____	Verification _____

1 ☐	1 ☐	1 ☐
2 ☐	2 ☐	2 ☐
3 ☐	3 ☐	3 ☐
K ☐	K ☐	K ☐
Verification _____	Verification _____	Verification _____

1 ☐	1 ☐	1 ☐
2 ☐	2 ☐	2 ☐
3 ☐	3 ☐	3 ☐
K ☐	K ☐	K ☐
Verification _____	Verification _____	Verification _____

DATA ENTRY OPERATIONS

VERIFICATION

Each instructor who rates this student on competencies in this MAP should fill in one of the boxes below.

_____ Initials	_____ Signature
	_____ Title
	_____ School Name
	_____ School Address

_____ Initials	_____ Signature
	_____ Title
	_____ School Name
	_____ School Address

_____ Initials	_____ Signature
	_____ Title
	_____ School Name
	_____ School Address

BUSINESS COOPERATIVE EDUCATION ON-THE-JOB EXPERIENCE

In addition to classroom training and laboratory performance identified on the Career MAP, this student has participated in cooperative on-the-job experience with employers, as shown below.

Dates	Employer
	Employer's Address
	Supervisor
	Supervisor's Title

Dates	Employer
	Employer's Address
	Supervisor
	Supervisor's Title

Dates	Employer
	Employer's Address
	Supervisor
	Supervisor's Title

[illegible]

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DVACE 06/90/4800

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